

7. The bioprinter of claim 1, wherein the receiving surface is moved relative to the one or more printer heads, the at least one cartridge, or the at least one deposition orifice, utilizing the laser and the laser detector, to produce a desired tissue construct of a particular three dimensional geometry, inputted via the graphical user interface, in the extruded contents of the at least one cartridge.

8. The bioprinter of claim 1, wherein the solid or semi-solid aggregates of living cells are substantially elongate.

9. The bioprinter of claim 8, wherein the solid or semi-solid aggregates of living cells are substantially in the form of cylinders or ribbons.

10. The bioprinter of claim 1, wherein the solid or semi-solid aggregates of living cells are substantially spheroid.

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